DEVOTED TO AGRICULTURE AND ALL ITS VARIOUS KINDRED ARTS AND SCIENCES.

Honor waits, o'er all the earth, The art that calls her harvests forth.—BRYANT.

VOL. I. SATURDAY, MARCH 17, 1849. NO. 7.

S. W. COLE, EDITOR. QUINCY HALL, BOSTON. J. NOURSE, PROPRIETOR.

GRAFTING.

This operation is of great importance to the fruit-grower, as he can readily change a worthless tree to a variety of the highest character. Many cases can be named in which a great profit has resulted by changes under this valuable process. A person unacquainted with grafting, on examining into the vast utility attending it, is struck with admiration at an operation so wonderful, and yet so simple, and of easy application.

Scions for grafting should be cut before the buds begin to swell, as they will not only keep longer, but they will succeed better, than those cut later. When cut in fall, or early winter, they will keep in good condition later, than those cut in March. This shows the importance of cutting before vegetation commences. If scions are cut after the buds begin to swell, it is better to set them immediately, as they will be checked by delay, which has an unfavorable effect.

To preserve scions, prepare a tight chest or box, moisten the inside, and place in the bottom either moist saw-dust, moss, loam, or sand, or a moist cloth, or mat, to hold moisture, and keep the scions cool. Lay in the scions — the more the better, as they preserve each other by their freshness or moisture. Cover them with a moist cloth or mat, and renew the moisture occasionally, as warm weather comes on. Place the box in a cool part of the cellar; if in a damp, dark part, the better. It is much better to surround the scions with moisture than to apply water directly to them. Some persons destroy scions by too much care in keeping them wet. When set on quite moist, or rather wet earth, they absorb moisture to their injury.

Scions may be set, in this climate, from the latter part of March to the last of June. Those set in June will make a smaller growth. April and May are very favorable months for this operation, and the greater part of grafting is done in April, or the latter part of April and early in May. Stone fruit should be grafted rather early, as the scions do not keep so well as other kinds, and the scions will not take so well after vegetation commences and the bark peels.

Grafting composition is now generally used instead of clay, as was formerly the practice. This composition is made with one part of beef tallow, two parts of beeswax, and four parts of rosin, melted together, and then turned into cold water, and pulled and worked thoroughly, like shoemakers' wax. The articles should be pure and of the best quality.

Sometimes mutton tallow or lard is mixed with beef tallow, meal with beeswax, or the wax may be dirty and poor; and the greater part of rosin sold in the interior is dark colored and inferior. Good rosin is of a light color, and almost transparent; and when the very best is used, the composition will bear five parts. Grafting composition is generally for sale at agricultural stores, and some may find it more convenient to purchase it than to make it.

NOTICES OF PUBLICATIONS.

PROCEEDINGS OF THE NATIONAL CONVENTION OF FRUIT GROWERS. — We are indebted to Hon. Marshall P. Wilder for this work, which is a pamphlet of fifty-two pages, containing the doings of a large convention of fruit-growers, held in the city of New York, in October last, under the auspices of the American Institute. The object was to compare specimens of fruits, and opinions, discuss the merits of different varieties, and elicit the best information from various sections of the country. Mr. Wilder was called to preside over the deliberations of the convention, which are valuable and instructive.

HOVEY'S MAGAZINE OF HORTICULTURE FOR MARCH, is filled with a variety of very interesting matter.

ILLUSTRATED NATURAL HISTORY, by Dr. A. B. Strong: Green and Spencer, New York. This is a monthly work, each number containing thirty-two pages, and four beautiful and spirited engravings of various animals, with scientific and popular descriptions. Price, one dollar per year. It is a work of great interest and merit, and remarkably cheap.

AMERICAN FLORA, by the same editor and publishers as the above, monthly. Each number contains four beautiful engravings of plants and flowers, and sixteen pages of letter press, giving a scientific description of plants, their medical properties, uses, propa-

gation, &c. Price, three dollars per year. It ranks high, both as a work of ornament and utility.

Will the publishers send us Nos. 1 and 3 of the History, and 2 and 3 of the Flora?

Address of R. Fletcher, Esq., before the Windsor (Vermont) Agricultural Society, October 5, 1848; — a valuable extract from which is on this page.

A New System of Vegetable Physiology, designed to account satisfactorily for the Phenomena which take place in the Vegetable Kingdom, and to show the influence of Light, Heat, and Electricity on Vegetation, by Daniel Vaughn, Cincinnati. With much interest and pleasure we have been examining the novel views of the able and intelligent author, but are not yet prepared to give an opinion on those abstruse and difficult subjects on which scientific doctors disagree. We are pleased to learn that Mr. Vaughn will pursue the subject.

IMPORTANCE OF AGRICULTURE.

We copy the following remarks on the importance of agriculture, and its happy influence on those who pursue it, from the Address of R. Fletcher, Esq., before the Windsor (Vt.) Agricultural Society. This prolific subject will soon be in the ascendency, as it was in the days of Adam.

Permit me to remind you of a well-known truth — the importance of the art of agriculture. Without it, man is a barbarian; a roaming savage, clothed in the skins of beasts, deriving a scanty subsistence from the spontaneous fruits of nature. We are indebted to this art for food and raiment, for the necessaries, the comforts, and the luxuries of life. It may then be termed the most essential of all the arts, the basis of all others, the foundation and support of society. Agriculture is important in a political point of view; it is the best foundation of national greatness and power. The love of country, the fire of patriotism, burns in no bosoms more intensely than in those who own and till the soil. The farmer identifies his possessions with his country, for which he has the strongest attachment, and in whose defence the strongest arm. It is important also in a moral point of view. No situation in life is so favorable to habits of virtue, and sentiments of devotion, as a residence in the country, and rural occupations. He who cultivates the earth is removed from a variety of temptations to which those in other pursuits are exposed. His habits, the calm and peaceful character of his labors, are all so many guardians of his virtue. The changes which the face of nature is constantly exhibiting under his eye, are adapted to promote his virtues: the fall of the leaf in Autumn, the opening beauties of Spring, the rich magnificence of Summer, and the desolate dreariness of Winter, — these are calculated to produce good impressions, and exert a salutary influence. The man who can witness them without feeling his heart glow with sentiments of love, reverence, and gratitude towards Him that made him, must be perfectly insensible. Will any deem these remarks inappropriate? I should feel myself wanting in faithfulness to the occasion if I should omit, in speaking of the merits of agriculture, a view of the subject so grateful and interesting. If, then, agriculture is actually so important, it behoves every class in community to aid in its improvement, and to take those measures best calculated to advance the art, and to stimulate the cultivators of the soil to excel in every branch of husbandry.

THE QUEEN BEE AT HOME.

The community of bees is an example of pure monarchy, unrestrained by any checks or power, yet never deviating into despotism on the one hand, or anarchy on the other. Some years ago, while our gracious queen was making a royal progress through her northern dominions, we witnessed a no less interesting sight of the progress of a queen-bee, in the glass hive of an ingenious friend and lover of nature at his country retreat. The hive was of that construction which opened from behind, and showed the whole economy within. In a few minutes the queen made her appearance from the lower part of the hive. Her elongated body and tapering abdomen at once distinguished her. She moved along slowly, now and then stopping to deposit an egg in one of the empty combs; and it was most interesting to perceive how she was constantly accompanied by nearly a dozen of bees, that formed a circle around her, with their heads invariably turned towards her. The guard was relieved at frequent intervals, so that, as she walked forward, a new group immediately took the place of the old, and these, having returned again, resumed the labor in which they had been previously engaged. Her appearance always seemed to give pleasure, which was indicated by a quivering movement of the wings. The laborers, in whatever way occupied, immediately forsook their work, and came to pay homage to their queen, by forming a guard around her person. Every other part of the hive meanwhile presented a busy scene. Many bees were seen moving their bodies with a tremulous motion, by which thin and minute films of wax were shaken from their scaly sides. Others were ready to take up this wax, and knead it into matter proper for constructing cells. Frequent arrivals of bees from the field brought pollen on their thighs for the young grubs, and honey, which they deposited in the cells. All was activity, order, and peaceful industry. None were idle but the drones, who seemed to stroll about like gentlemen. — *British Quarterly Review.*

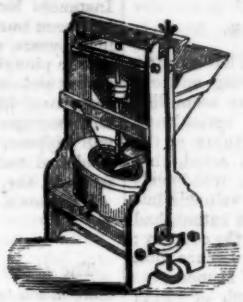
MELON CULTURE.

Hovey, in his Magazine of Horticulture for December, speaking of a visit to the garden of H. N. Langworthy, Esq., on Genesee River, near Rochester, says:

We have stated that Mr. Langworthy gives great attention to the culture of the melon. The kinds he cultivates are principally the Imperial and the Black Spanish, but the greatest quantity of the former, which, though so late a variety, that, in the latitude of Boston, it will not come to perfection in the ordinary modes of culture, by Mr. Langworthy's plan, ripens an immense crop. His mode is to start the plants in a hotbed — the same as for cucumbers: the plants are removed to the hills where they are to grow, as soon as the weather is favorable, but they are not immediately exposed to the weather: boxes, covered with a coarse gauze or millinet, about two feet square, are placed over each hill, and as the plants become inured to the open air, the boxes are removed, and the plants continue to flourish, soon covering the ground. Melons of the Imperial variety are produced, weighing about thirty pounds each. This is a profitable crop as managed by Mr. Langworthy; and it is almost unnecessary to add, that no crop, either of melons, cucumbers, or squashes, can be grown without a great deal of care, especially in attending to the destruction of insects, &c.

WIRE WORMS.

The Albany Cultivator states that a farmer near Albany has preserved his corn from wire worms the present season by rolling the seed in sulphur.



NICHOLS & MARSH'S PATENT PORTABLE GRIST MILL.

Among the many new inventions of the day, we would call the attention of our readers to the mill represented above. In many sections of the country, great inconvenience is often experienced, by farmers and others, for want of mills for grinding grain for various purposes. As this mill is portable, it occupies but little room, and if water power cannot be had, steam or horse power may be used.

In some places, the natural advantages for grist mills are not improved in season to accommodate early settlers; in such cases, this may be used with great economy, as it costs far less than a common grist mill with the various expenses that usually attend a preparation for using water power.

The patentees of the above mill remark as follows:—

"There is one best way to do every thing. With great confidence we recommend this article to the notice of practical men who are engaged in or are about to establish the mealing business, or who wish to erect a mill at a comparatively small expense, for occasional use. Out of the numerous improvements that have appeared in the last twenty years, there are none, in our view, either for simplicity, efficiency, durability, or economy, that equal it, and, as far as our experience has gone, we are led to believe it the best portable mill for grinding grain, corn, salt, plaster, and spices, extant. It is composed of the best French burr stones, which hitherto we think entitled to the preference of all other material for that use. They are substantially built, easily kept in order, and can be attached to the requisite power with great facility."

Three sizes are manufactured, of sixteen, twenty-four, and thirty inch stones, adapted to different powers. These mills are in use in some parts of New England, and in the state of New York. It may be seen in operation in this vicinity.

THE RUST IN WHEAT.

The following remarks from the Annual Report of the St. John (N. B.) Agricultural Society, as to one of the causes of rust in wheat, are thrown out rather as a supposition than an opinion, with the view of exciting inquiry.

The oat draws nutriment from the earth by side roots, which spread over the ground. The wheat plant has similar rootlets, but, in addition thereto, when about to head, sends down a tap-root into the earth, for the purpose, it may be presumed, of procuring the additional nutriment which its large, rich ear requires; and this tap-root has been known to go down to the depth of four feet. We may observe, that up to the time of sending down the tap-root, the wheat is the hardiest and thriftiest of all the cereals, but afterwards the most liable to disease. This delicacy is accounted for, when we consider that land is generally undrained; that not more than a few inches of soil get the benefit of sun, air, and manure; and that, therefore, the root must encounter, in its downward travel, nothing but disappointment. It comes in contact with the cold clay, or a sour, wet subsoil, turns back in despair, and dies. In accordance with the laws of nature, insects, or rust, which is itself a fungus, or vegetable insect, come to finish the work of devastation on the dying plant. The forlorn farmer rails at the climate, and cries out that his wheat is killed by rust, while, in fact, it has died from starvation — from the want of that food, which, as a provident husbandman, it was his duty to have provided for it. — *American Agriculturist.*

Remarks by the Editor New England Farmer.

If the theory in the foregoing article is correct, much may be done to remedy the evil by subsoil ploughing, as the subsoil will gradually become mixed with the surface soil, by deeper ploughing, which should follow subsoiling; and by exposure to the air, it will be fitted to promote vegetation and improve the active soil by the addition of fresh ingredients.

SUBSOIL PLOUGHING.

In the summer of 1844, I harvested a piece of wheat, comprising ten acres of good wheat land, that had been under the plough for about *seventeen* years; it had not been seeded, was very much run down, full of "foul stuff," June grass, &c. It was clay soil. My crop of wheat amounted to about eighty-five bushels.

In June, 1845, with the subsoil plough, two yoke of oxen, and a span of horses, by *once* ploughing, I most thoroughly subdued the grass and foul stuff, and fitted it for seeding down; and from the same ten acres, in 1846, I had over *three hundred bushels of wheat.*

CLARK BEARDSLEY.

Avon, Oakland Co., *March*, 1848.
— *Michigan Farmer.*

The best snuff in the world is a snuff of the morning air.

For the New England Farmer.

RAISING FOREST TREES.

Mr. Editor: The attention of farmers has recently been directed to the subject of preserving and extending our forests. To some this may seem like a retrograde movement in the art of agriculture. There may remain in many minds something of the impression under which our ancestors acted, that trees are an encumbrance, and that the woodman's axe is at the foundation of all the most valuable improvements. This impression, to a great extent, had just foundation in the early settlement of the country; but circumstances have greatly changed since that period. Formerly, the chief purpose of farmers was to avail themselves of the natural strength of virgin soils; and it was easy to obtain all that was necessary or expected by passing from the long-tilled fields and clearing away forests to form new ones. This system has had its day, and the means of pursuing it no longer exist. Let the views with which it was once pursued pass away with it. Let our systems and practices be regulated with wise reference to the wants of the present and the probable condition of future generations.

With the exception of small circles around cities, much more land is cleared of forest in the commonwealth than the present population can cultivate to any advantage in grass and grain; some of it is lying in a state of absolute waste. We can convert the most exhausted fields into flourishing forests in a few years. In what more important or praiseworthy labor can we engage? Some tell us this business of raising forests may be an excellent thing for future generations, but they cannot afford to vest capital on so long trust.

This idea of realizing immediate profit from whatever we do defeats many highly-important enterprises. But this work of planting worn fields with forest trees is not so exclusively for the benefit of another generation as is often supposed.

A field planted by the writer ten years ago, is now of more than double the value it was when the operation commenced; in the next ten years it probably will increase in value still more. We are sitting in this inclement season by good open fires, built of wood, the seed of which was sown less than twenty years since. Those who think this not a sufficiently early return for labor, may go, if they choose, to California, and dig in mud and water for reward more to their taste. We hope, however, there will always remain a sufficient number, steadfastly attached to their paternal homes, to beautify old Massachusetts with just proportions of verdant groves and highly-cultivated valleys.

With recommendations to extend forests, we would contribute as much as in our power in aid of those engaged in this comparatively novel work. Numbers, it is perceived, are engaged in transplanting. This course is believed to be more expensive, and not productive of so good results as sowing the seed. Evergreens, in particular, it is difficult to transplant in so perfect a manner as will be followed by an immediate and vigorous growth. Other kinds of trees more favorable for transplanting are found to flourish better where they were originally planted. But if transplanting could be supposed productive of equally favorable results, the expense of it would alone justify a strong recommendation to sow the seed in preference. Dry seasons often destroy transplanted trees, more rarely seedlings.

Forest seed of every kind will usually vegetate well, if too much art be not employed in the preservation and the planting. Experience seems to prove that it is best to gather the first ripened seed and sow immediately, leaving it chiefly or entirely to the operations of nature to cover the seed. The natural spread of forest trees indorse this doctrine. Instances have been witnessed where forest seed had been buried in the earth too deep to vegetate for many years, and afterwards, turned near the surface by the plough, has sprung up and flourished. The easiest and cheapest methods of managing forest seed seem most likely to insure success. This, no doubt, will be regarded by many as strange doctrine; they will suppose, with Naaman, that great results can be produced only by great performances. We, like the servants, say, Try simple means.

Pembroke, *Feb.* 28, 1849. M. A.

Editorial Remarks.

The above communication is from one who has done much to clothe our barren lands with beautiful and valuable forests; and though he did not commence operations in this branch in early life, he is now enjoying the fruits of his labor. He makes one suggestion that is not duly considered. We now have extensive lands that are almost barren; and if rapid improvement be made, it will be a long time before these lands can all be renovated, so as to produce a good crop. How important, then, to plant forest trees on some of these lands, which will yield a good growth before they could be improved by manure and cultivation! and after the valuable crop of trees, the land will be in better condition for other crops, than if it had remained in an almost barren state, as the leaves and the roots of the trees, with some other parts that decay on the land, will improve its condition very much.

For the New England Farmer.

LIME AS A MANURE.

Mr. Cole: Notwithstanding the war waged against lime as a manure, by some of our agricultural writers, we are still of the opinion, that when applied on certain soils, or composted with swamp mud, it is one of the most efficient fertilizers of the soil.

The very general opinion that the soils of Massachusetts contain a sufficiency of this mineral, and the prevailing prejudice against the use of lime for agricultural purposes in the Old Bay State, have, probably, deterred many from making experiments that might have resulted in incalculable benefit to the farmers.

So far as our experience extends, it may be advantageously applied on much of the soil in the Old Colony. Composted with swamp muck, it makes a valuable top dressing for our light, sandy soils; and it is equally efficient when applied to vegetable or grain crops. Sown broadcast on our acid soils, its effect is twofold: it improves the quality and increases the quantity of vegetation. Doctor Dana says, "It is the lime, the base of the salts, which acts, and that always as lime, no matter how it is applied.

"Its action is threefold, each distinct: first, as a neutralizer; secondly, a decomposer; thirdly, a converter.

"1st. Where free acids exist in soil, lime acts as a neutralizer.

"2d. If any acid geine exists in the soil, or any free acids, carbonic acid is then liberated; it acts on the geate of lime; supergeates result, and these are easily soluble.

"3d. The great use of lime is a converter, turning solid and insoluble geine, even solid vegetable fibre, into soluble vegetable food.

"Fertility depends wholly on salts and geine.

Without the last, there is no fruit formed. Without the salts, the geine is locked up, — is insoluble.

"In acid soils, lime acts to eliminate carbonic acid," &c., &c.

Now, Mr. Editor, it seems to me the only question to be settled is this: Are our soils already sufficiently supplied with lime? And in order to elicit the facts, and bring the subject before the proper tribunal, — the public, — that this long persecuted mineral may have a fair trial, we will suggest, that much of our soil is deficient of calcareous manure; that many of our comparatively barren fields abound in undecomposed vegetable matter, which, by the application of lime, would be converted into vegetable food; that, applied to our acid fields, (abounding in iron ore,) and producing a worthless vegetation, its neutralizing influence would render such soils productive of the most valuable grains and the sweetest herbage.

PEMBROKE, *Feb.* 26, 1849. C.

EDITORIAL REMARKS.

Lime is often a valuable ingredient in the compost heap, for the purpose of preparing the manure for immediate use. In making compost, mix one part of stable or any animal manure with about two parts of mud or muck, that has been exposed to the air or frost for one season, adding about one and a half or two bushels of fresh slaked lime. In a short time, fermentation will generally commence; and when quite active, it will be well to fork over the heap, and thoroughly mix the different ingredients. In about a fortnight, if a good degree of fermentation prevails, the manure will be fine and mellow like a powder, and far more valuable, as many experiments show, than the same manure without lime.

In this way, the alkali of the lime, with the ammoniacal gases liberated from the animal manure, combines with the mud, renders it friable, and destroys its acidity. As many have applied lime directly to the land, and perhaps in the most improper manner, without success, they have condemned it without fair trial. But farmers are growing more discreet and will in future try this fertilizer with more discretion.

GRAIN AND GRASS FARMING.

At the agricultural meeting, at the State House, February 27th, the above subject was discussed. Hon. Mr. Leonard, of Norton, presided; and, in announcing the subject, he made a few remarks on its great importance to our state, as from the grass and grain crops we have our bread, meat, butter, cheese, &c.

Mr. Cole, of the New England Farmer, opened the discussion. He remarked, that the subject was very extensive. He thought, that in most parts of New England, it was best for the farmer to raise nearly all the produce necessary for his family, as there is generally a disadvantage in raising one crop, and selling it with a view to buy another. If a farmer raises hay wholly, it may, at times, be unsalable, and he may sell good crops, and in buying he may get deceived and buy poor produce. It may be well to raise one crop principally for profit. By a rotation of crops, a larger amount of produce will be obtained from the same manure, as different crops take different ingredients from the soil. He recommended manuring highly for corn, and then following with small grains without manure, and then with grass. Compost manure was best; it should be covered rather deep in light lands, else the gases would soon escape. On heavy lands, it should be slightly covered. More experiments are necessary in raising wheat in this state, both with different mineral manures, and different kinds of grain for seed. Mr. Job Sumner, Roxbury, succeeds well with Smyrna wheat.

Mr. Bartlett, of the Cultivator, said, that he had adopted Mr. Phinney's mode of raising corn and grass, which is, to turn over the sod in flat furrows, and roll them down, harrow in the manure, plant corn, cultivate on a level, and the next spring, with a light plough or cultivator, make the soil fine without disturbing the sod, and sow to grain and grass. In this way he was very successful, more so, he thought, than by turning up the inverted sod. He had tried lucerne, orchard grass, and tall meadow oat grass; but they were inferior to herdsgrass, redtop, and clover.

Mr. Bigelow, of Walpole, said, that farmers there generally failed in attempting to raise wheat. But one neighbor succeeded by ploughing and applying manure in the fall; but he could not say whether the manure was ploughed or harrowed in. The soil light.

Mr. Hiram Boyles, of Princeton, said, that the wheat crop failed in his vicinity, excepting the Black Sea wheat.

Hon. Mr. Brooks, of Princeton, gave the result of experiments in a rotation of crops for eleven years: first, potatoes; second, corn; third, wheat; then grass eight years. In his estimate of profit, he reckoned interest at six per cent. on land at fifty dollars per acre. He added nothing for manure, as it was produced from hay estimated at six dollars per ton, consumed on the farm.

Cost of an acre of potatoes, and interest of land,		$32 72
Produce, 225 bushels of potatoes, at 25 cents,		45 00
Profit,		$12 28
Cost of an acre of corn, and interest of land,		$27 50
Produce, 45 bushels at 85 cents,	$38 25	
Fodder,	7 00	
Total,		$45 25
Profit,		17 75
Cost of an acre of wheat, and interest of land,		$21 60
Produce, 20 bushels, at $1,33⅓ cents,	$26 66	
Straw,	5 00	
Total,		$31 66
Profit,		$10 06

Cost of harvesting 12 tons of hay, .	$24 00	
Interest, 8 years, on 1 acre of land, .	20 00	
Total, ...		$44 00
Produce, 1½ tons, 8 years, at $6 per ton,		72 00
Profit for 8 years, ...		$28 00
Profit of 1 acre for 11 years, . . .		$68 09

In this estimate, the labor of a man was reckoned at one dollar per day, and that of oxen at fifty cents.

Mr. Brooks showed by estimates, that there was more profit in raising corn in Massachusetts than in Ohio, and that, with a due degree of intelligence and industry, farming was more profitable than any other business.

Mr. O. Brigham, of Westborough, said, that he followed the method of Mr. Wm. Clark, of Northampton in raising corn and grass. His land was a sandy loam. He ploughed six or eight inches deep; applied compost manure, and harrowed it in; planted corn, cultivated on a level; was not troubled with weeds. He sowed grass seed at the last hoeing, which was from the middle of June to the middle of July. This mode is very successful. His corn costs forty cents per bushel. Red top binds out. He prefers foul meadow grass, as it makes better hay.

Mr. Jones, of Wayland, made some remarks on the profit from potatoes, though that was not the subject before the meeting. His profit was sufficient to pay all expense, pay for the land, and leave a balance.

Mr. H. B. Pearson, of Harvard, said, that as potatoes had been unusually high for a few years past, the profit on that crop was no criterion of the general profits of farming.

Mr. H. C. Merriam, of Tewksbury, exhibited very handsome specimens of corn which he had produced by a cross between the Canada corn and a variety from Nantucket.

BEST MODE OF OFFERING PREMIUMS

FOR ENCOURAGEMENT AND IMPROVEMENT IN AGRICULTURE.

At the agricultural meeting, at the State House, March 6, Hon. M. P. Wilder, president, in the chair, the above subject was discussed. Mr. Wilder read the following letter from the president of the Essex Agricultural Society, which was then placed in the hands of the editor of the New England Farmer, as directed by Mr. Proctor.

GENTLEMEN: When I saw announced that the legislative farmers were about to take into consideration the best mode of offering "premiums for the encouragement of agriculture," it struck me that the theme was highly appropriate to their position. This state itself has done so much to aid the enterprise of the farmer, that it is meet that those who govern the state should be consulted in the application of this bounty.

Apprehensive that it may not be in my power to be present at the discussion this evening, I thought I might be pardoned in putting on paper a few suggestions. The main purpose of offering premiums is, to awaken the interest and attention of the cultivator to the subject — to impress him with the necessity of doing what he would not otherwise be inclined to do. The direct benefit accruing from the obtaining of premiums is of secondary importance, compared with the lessons of instruction acquired in the efforts to obtain them. While there are some who will seek knowledge for the sake of knowledge itself, there are many who will swallow it with more avidity when sweetened to their taste.

Care should be taken that the object for which premiums are offered, should be not only valuable in themselves, but of a character to afford a fair chance for competition. It is desirable to embrace as great a variety as practicable, that all classes may be more or less interested, and disposed to encourage the exhibitions with their presence.

Among the premiums which have been most generally approved, and from which, in my judgment, have sprung the most beneficial effects, are those which have been awarded for successful efforts in *ploughing*. Ever since my attention has been directed to this subject, — now nearly *thirty years*, — have *ploughing matches* been continued, and always with unabated interest. They seem particularly well adapted for the gratification of the public. They create an agreeable excitement of mind, that has a cheering and healthy influence. "All work and no play makes Jack a dull boy." This adage is equally applicable to *old boys* as to *young ones*. At each succeeding exhibition of skill in ploughing have some new peculiarities or improvements been developed. Compare the structure of the ploughs now used with those that were in use when these matches were first introduced, and will any one hesitate to acknowledge the advances that have been made? Is it not therefore beneficial, once a year, to exhibit to the people specimens of best skill in the structure and use of the most essential implement of agriculture — *the plough*? The offering of premiums for the management of *farms entire*, first suggested by COLONEL PICKERING, a source most worthy of regard, has ever been with us, in Essex, a favorite method of bestowing our bounties. If societies can be so fortunate as to command the services of intelligent committees, who will observe with discrimination and report with fidelity, in this way more practical intelligence can be condensed than in any other. Nor would I undervalue the untaught descriptions from the *hard hands* of the workingmen themselves: though their periods may not be so finely polished or perfectly pointed, they not unfrequently embrace the germ of all that is worth remembering. Such statements give a summary view of all the individual objects of premiums within the limits of the farm. Let any one accompany such men as *Pickering*, or *Lowell*, or *Allen*, in their view of the farm, of their county, and if they do not say that the lessons of instruction derived from their unpremeditated remarks upon the objects that come within their observation, are among the most valuable agricultural lectures, I will acknowledge that their experience does not accord with my own.

Essays on subjects connected with agriculture have, in several instances, been favored with our bounties. By these, it is not intended simply the compilations of ideas from books on the subject: but the bringing together the results of careful observations and well-conducted experiments, and the comparison of facts that naturally spring from them. No one can attentively watch the cultivation of an acre of any crop worth raising through the season, and note in his own way the various phenomena presented to view, without having many queries arise, no explanation of which can readily be found in any printed treatise. If he will but carefully arrange and digest these observations, at the close of the season, this operation will constitute an essay

equally beneficial to the one that *produces*, as to him that *peruses*.

My paper will not admit the views in relation to *dairy products, the best mode of cultivating grasses, the renovation of orchards*, &c., &c., that had occurred to my mind; but what I have said may be taken as a sample of what might be said on other subjects almost innumerable.

Very truly yours,

DANVERS, *March* 6, 1849. J. W. P.

Hon. Mr. Denny, of Westborough, remarked, that the bounties of the state to agricultural societies amounted to seven thousand dollars, and this was dispensed by competent judges. The societies make a return of their doings, an abstract of which is published. One class of men are satisfied with the honor of obtaining premiums; the principal object of another class is to get the money. In some cases books have been offered, in part, as premiums; and he was sorry to say, that this was not satisfactory to the competitors. Societies had followed the same path in offering premiums for twenty-five years. He thought it would be better to give more premiums on well managed farms, and generally to give larger and fewer premiums. Instead of premiums for the best cow, they should be for the best dairy, with a report on the breed of cows, mode of feeding, management, &c. Premiums should be offered for good practical essays on agriculture. He thought the time had come for a change. Ploughing matches had led to great improvements in the plough, and now other implements should receive attention.

Hon. Mr. Calhoun, secretary of state, said, that this was a novel but important subject for discussion. He thought there was room for great improvement in our cattle fairs. The business of examining articles and reporting was done in too much haste. As the returns to the state may be made until the 10th of January, there was an opportunity to make deliberate reports. From some societies the reports are good; but in some cases, particularly on the subject of swine, some person, who has no practical knowledge of agriculture, writes a report before the time, and endeavors to make a display of wit rather than of knowledge. Such reports may serve to amuse at the time, but they do not answer the purposes intended as a return for the state bounty. The state furnishes societies with money, and they ought to furnish useful reports. Premiums offered for single cows are generally taken, not by farmers, but by others who have only one cow and feed high; and cows are often short-lived from high feeding. The owners of such cows can furnish no useful information on management. The great object should be to elicit information of general interest. In Plymouth county, a supervisor is employed to travel over the county, for the purposes of observation, and make a general report. This is a good arrangement. Mr. Allen, a skilful farmer, is employed in that office. He wished to see officers of the State Agricultural Society at these meetings, that we might concentrate all the aid we can upon this great subject. Much is done by agricultural papers and societies for improvement.

Mr. William Parker said, that there was but little advantage in giving premiums for milch cows, as we seldom hear of them after the premium is given. If the owner can get two dollars more for a cow for beef, she is sold for that purpose. Premiums are seldom taken by those who have several cows.

Mr. Cole, of the New England Farmer, said, that he had attended cattle fairs in different parts of the country with great pleasure, and generally, they were conducted by the most intelligent men; but he thought that some improvements might be made. Premiums should be given for economical and profitable farming, rather than for great crops from a single acre of land, that cost more than they are worth, while the rest of the farm was neglected. This is bad management, and should not be encouraged by agricultural societies. Horticulture is a branch that receives attention at agricultural exhibitions. Sometimes an amateur cultivator will raise half a dozen very large specimens of fruit on a dwarf tree, and take the premium in preference to the most skilful cultivator in the country, who has acres under the most profitable and successful management. At some horticultural exhibitions, premiums are awarded for the greatest variety of fruits, when not one quarter of them are worth cultivating, and no distinction made between the good and the poor. The inexperienced, judging from appearance only, are often deceived. In estimating the quantity of milk given by cows, it should be weighed, as this rule would be uniform. Measures differ very much.

Mr. H. C. Merriam, of Tewksbury, said, that in Worcester county, the premium calf might be traced to the premium ox, and the effect was not such as was complained of by Mr. Parker.

Mr. Denny thought it would be a good mode to offer a premium for the best dairy of cows raised by the farmer himself, and another for the best one half of the cows raised by the farmer.

The president observed, that he was highly pleased with the remarks that had been made, and he hoped that they would be duly considered by those who dispense the bounties of the state. Observations from those who have the care of the state affairs are entitled to serious consideration.

AMERICAN APPLES IN ENGLAND.

Mr. P. Barny, (of the firm of Ellwanger & Barny,) editor of the horticultural department of the Genesee Farmer, furnishes from England, for that paper, the following account of American apples in that country, which contains valuable hints to the growers and exporters of fruit.

Large quantities of American apples have been brought into Liverpool recently, but the most of them have been of indifferent quality, and badly gathered and picked; and hence they do not command high prices, nor do us any credit, — nor can the shippers gain by the operation. There is an unfailing market here for our orchard products; but to make the shipment of them profitable, it is absolutely necessary that select varieties be sent, that they be carefully hand-picked and packed in the best manner. One barrel will then sell for as much as three or four; and the freight, which is the great

item, will be no more on a barrel that will sell more readily for five dollars, than one that will bring only two dollars. Many of the apples I see here cried up as "nice American apples," "beautiful American apples," &c., would scarcely sell at all in our market; yet they are sold here at three to six cents each.

The English people have fairly given up growing apples for market, unless it be Codlins, &c., that come in early for cooking, and Beaufins, &c., for drying. They see it will be impossible for them to compete with American orchardists. Yesterday I examined two or three hundred varieties in the fruit rooms of the London Horticultural Society; and among them all, there was not a single large, clear-colored, fine-looking specimen. One would suppose, at first sight, that they were all wind-falls, gathered from under the trees last August. The Roxbury Russet, Fall Pippin, and Rhode Island Greening, were among the best specimens; and they were not half the size we grow them. The most esteemed varieties pointed out to me by Mr. Thomson, such as Pearson's Plate, Warmsley Pippin, Pomme Royal, (not our Pomme Royal,) Golden Harvey, Sturmer Pippin, &c., are small, inferior looking things, — in size from that of a small Pomme Gris to that of a Siberian Crab; but they are generally harder and richer than ours. The Newtown Pippin and Roxbury Russet come nearer the English taste than any other varieties we cultivate. I had some Northern Spy and Melon with me, that I have here now in London in fine condition. They have elicited the admiration of all who have seen them. There are, indeed, no such apples to-day in England. The Northern Spy may be sent to Covent Garden market, just as well as to Fulton or Washington markets, New York. The pears in the markets here now are from France or the Island of Jersey. They come in half-bushel baskets, containing fifty to one hundred, according to the size of the fruit. They are packed in very dry, soft meadow hay: a layer of this hay, two or three inches deep, is laid on the bottom, then a layer of fruit, then another of hay, and so on to the top: the fruits are not allowed to touch, and in this way they go any distance with entire safety. I saw at Liverpool little baskets of Glout Morceau and Chaumontel, fifty in each, sold for three to four dollars each, to the confectioners and market women to retail.

In Covent Garden market, which is head-quarters for all rare and fine garden commodities, I see fine St. Germains, (the old one,) Marie Louise, Passe Colmar, Winter Nelis, Beurre Rance, Easter Beurre, &c., sold at twelve and a half to eighteen and three fourth cents each. If we ever succeed in raising pears beyond what may be required for home consumption, they will find market and good prices here. Not one person in a thousand — I might say five thousand — ever tastes a fine pear.

THE SHEEP IN ITS VARIOUS FORMS.

Wise men regard with suspicious eye the assertions of those who profess to accomplish a variety of dissimilar effects by a single cause. It is customary to be jealous of the pretensions of "Universal Restorative," "Heal All," or any other panacea warranted to cure diseases of all symptoms or all origins. And the proposal *to adapt one breed of sheep to all circumstances* of food, climate, and situation, making it answer all the purposes for which sheep are usually employed, seems justly to meet with similar distrust and suspicion.

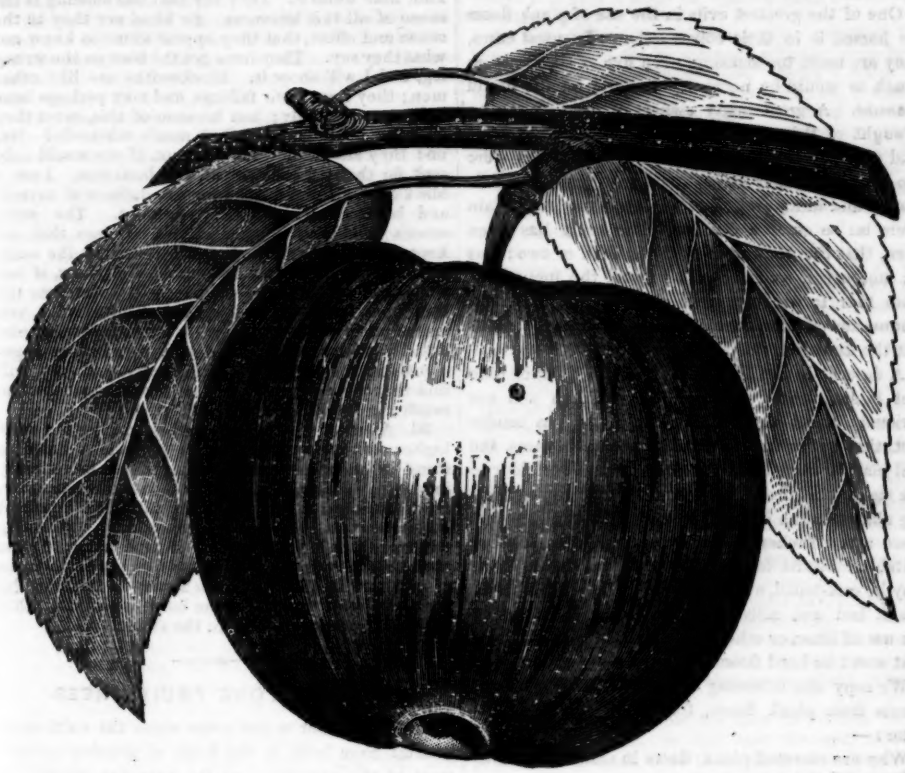
From the varied habits of sheep, the widely different circumstances in which they are placed, and the opposite results which the several kinds are intended to produce, we are at once led to doubt the practicability and value of the scheme. We are induced still further to view the proposition as contrary to the order of nature, when we consider the fact that there is scarcely any animal which appears under so many forms as the sheep. In Persia and other parts of the east, it is found with a tail of twenty pounds weight; at the Cape of Good Hope, the tail is worth as much as all the rest of the carcass; there and in other parts of Africa, the sheep have clusters of horns, to the number of five or six. In Madagascar, the same horns and tails are to be seen, the ears hanging down like those of a hound. About Aurengabad, between Agra and Bengal, they are found without any horns at all, but so strong that, being bridled and saddled, they will carry children of ten or twelve years of age. The (so called) sheep of Chili somewhat resemble camels, being hare-mouthed and hunchbacked, and they are used for carriage and field labor. Those of China are small, with short tails, which, however, are a lump of fat. Tercen, in his Voyage to Surat, mentions sheep with bent snouts and pendent ears, with wool more coarse and stiff than goat's hair. In Africa, to the north of the Cape of Good Hope, they never eat grass, only succulent plants and shrubs. In Thibet, the sheep have large, broad tails. In Natolia, these tails are laid in carts on wheels. In Anspach, in Germany, a small sort exist, that are shorn twice a year, and also lamb every spring and autumn. In Juliers and Cleves, also, they are said to lamb twice a year, and bring two or three at a time — five sheep have brought twenty-five lambs in a year. On the slave coast of Africa, the sheep have no wool; "but," says the old Dutch traveller Bosman, "the want is supplied with hair, so that here the world seems inverted, for the sheep are hairy and the men are woolly." This hair forms a sort of mane, like that of the lion, on the neck, and the same on the rump, with a bunch at the end of the tail. The Javanese sheep have tails weighing occasionally forty or fifty pounds, having a coat of red and white hair. Four-horned sheep are numerous in several parts of Tartary, and a few have six horns, with wattles under the throat. — *Agricultural Gazette.*

ADVICE IN POULTRY KEEPING.

The principles upon which I rely for success in keeping hens, are, 1. To have two breeds — a few to hatch and rear the chickens, and twice the number of everlasting layers, as eggs are more profitable than chickens; 2. To get a hatch as early as possible in spring, and to keep them well — these never cast their feathers like the old birds, and if they begin to lay in autmun, lay more or less all winter; 3. Never to keep old fowls, (none but favorite fowls ought to be kept more than two years;) old birds lay larger eggs than pullets, but not nearly so many; 4. To give them the best barley I could get, and as much as they could pick up once a day in summer, and twice in winter; they are not only more profitable, well kept, but the eggs are better. The two breeds I like best are the spotted Dorkings for sitting, and the Pheasant breed for laying. — *Agricultural Gazette.*

SAGACITY OF THE HORSE.

It is stated that if a horse be shut up in a pasture where there is no water, he will, at certain times of the day, make it a practice to stand in those situations where water is nearest the surface, and thus indicate the best place for digging for it. Those who allege this to be the fact, say that horses have the faculty of smelling the water, like the camels of the African desert, or the cattle of the South American "pampas."



NORTHERN SPY APPLE.

Size, large; form, roundish-conical, varying occasionally to flattish conical, slightly ribbed or undulating; skin, very fair and smooth, of a greenish yellow ground, mostly covered with rich dark red, with stripes of brilliant crimson and purplish red, frequently russet around the stem, numerous small dots over the surface, which is covered with a thin bloom; stem rather long, in a broad, deep, irregular cavity; calyx, small, closed in a narrow, tolerably deep, slightly ribbed basin; flesh, yellowish-white, fine texture, tender, very crisp, juicy, of a mild, delicious, aromatic flavor. In use in spring, and often keeping till midsummer.

The Northern Spy, for a few years past, has excited more attention than any other apple. It is beautiful, splendid, and excellent. Remarkable for its freshness after long keeping. We have had this fruit for several years, and for spring and early summer, it promises to excel every other variety. Yet it has not been fairly tested in New England as to its bearing properties, fairness, &c. It is a great grower, and remarkably hardy. We have cultivated it several years in Maine, and in this section, without the least injury from cold winters. It will endure more severe cold than the Baldwin or Greening.

The growth of this variety is upright, forming a compact top, which needs thinning to expose the fruit to the sun. Owing to its upright habit, it is advisable to graft on wide-spreading trees. High culture and pruning are necessary to keep up a vigorous growth and produce a good crop of fair fruit.

The original tree of the Northern Spy was raised on the farm of Mr. O. Chapin, East Broomfield, N. Y., from seed carried from Connecticut. So it is in reality of New England origin. We do not name this, claiming honor for New England, for she already has a large share in the fruit line, but we mention it as a circumstance showing that it may be adapted to our climate. As this variety blooms about a fortnight later than other apples, it is more likely to escape injury by spring frosts.

We can furnish scions of this valuable apple.

SUBSTITUTE FOR THE POTATO.

M. Masson has lately grown a new root, called the *ulluco*, which can, it is thought, replace the potato. It originally came from Peru, and grows perfectly well in the open air: the flavor is very near the same as that of the potato. The part above ground furnishes a very agreeable vegetable, something like the bean in flavor. Three crops of the green part can be obtained in the same season. — *Paris Paper.*

PLANK FLOORS FOR HORSES.

One of the greatest evils in the use of plank floors for horses, is in their construction. In most cases, they are made too slanting, even five or six times as much as would be necessary to carry off the liquid manure. A great many owners of horses have no thought of this evil. In numerous cases, we have said to the keepers of horses that their floors were too steep, and their horses stood with pain, or a continued and unnatural effort was necessary to sustain them on so steep a descent. The reply has often been, that the descent was only an inch or two; but on measuring, we have often found the inclination from four to six inches in a length of nine feet. Thousands of horses are suffering in this way without the knowledge of the owner.

A descent in the floor of one inch in eight or nine feet is sufficient. This slight inclination will not seriously affect the horse. If a horse has tender feet, that suffer from a hard floor and dryness, the evil may be remedied by making first a level floor to the stable, and then a floor slanting slightly, extending almost to the fore feet; and under the fore feet place a few inches in depth of sand, loam, or other suitable material for the horse to stand on. This may be moistened, and afford the advantages both of a soft bed and moisture; which may be done by the use of litter, or other substances, to relieve horses that stand on hard floors.

We copy the following remarks, on the injurious effects from plank floors, from the Western Cultivator: —

Why are elevated plank floors in stables injurious to horses' feet?

1st. Because they deprive the hoof of receiving certain assistance, which they require for their well being, and which in a state of nature they receive by moisture. The hoofs of horses are a horny, elastic, porous substance, capable of receiving moisture, which is indispensably necessary to their well being. In a natural state they receive it, and in a domesticated state they might, if men would hearken to the mandates of nature. The evils of domestication to the horse are recognized by many intelligent observers and admirers of the horse. In proportion as we vary in our treatment to the horse, from his natural way of living, in the same ratio do disease and lameness exist. 'Tis a solemn fact — start not at the idea — that the diseases of horses are induced by the deeds of men. Candid observation will prove the truth of this assertion. The horse's natural floor, the earth, is the best and only suitable floor for him: on that, his hoofs receive requisite moisture; on plank floors, they do not. Why? Because it is not there. The plank floors are generally (always, I believe, when they are made fashionable) made higher at the fore part, than the hind part; consequently, what little moisture there may be from the dung or urine, is drawn away from the fore feet: the effect is, the horse becomes lame in the fore feet, hoof-bound, narrow heeled, &c., while the hind feet remain sound and healthy. Why? Because the hind feet receive moisture from the dung, urine, &c., when the fore feet fail to receive it. It will be found, upon examination, that nine tenths of the horses that are lame, are so in the fore feet; stage, carriage, road, and hackney horses, that are stabled all the time, (except when in use,) are generally the subjects of such lameness. A majority of writers and farriers acknowledge and deplore the prevalence of lameness in the fore feet; and it is easier to cut a knot than untie it. They say that bad shoeing is the cause of all this lameness. So blind are they to the cause and effect, that they appear to me to know not what they say. They have got the boot on the wrong leg, and I will show it. Blacksmiths are like other men; they have their failings, and may perhaps lame horses occasionally; but because of this, must they bear the blame of all other men's misdeeds? No, no; they should not, nor will not, if we would only seek for the true cause of all this lameness. I am a blacksmith; I stand good for the defence of myself and brethren when falsely accused. The same causes produce the same effects. Horses that are kept up are generally shod all round by the same men, and in the same manner. Well, now, if bad shoeing lames the fore feet, why will it not lame the hind ones in the same manner? Tell us why, you fault-finders who falsely accuse horse-shoers, or else desist: look at the effects of your own bad management, niceness, and false philosophy, and you will find that your dry plank floors are the cause of so much lameness, and not bad shoeing.

2d. Another evil, attendant upon making the stalls higher at the front, is, that it compels a horse to stand in an unnatural position, which is certainly improper. When a horse stands in such a manner, the muscles and arteries of the hind legs are kept constantly on the stretch, frequently producing windgalls, &c. These ideas, if true, may suggest the idea of level stable floors, and of the importance of moisture to the hoof, which may be imparted by washing, daily, the legs of the horse with water, that must of necessity be kept in the stable.

PRUNING STONE FRUIT TREES.

It has been but a few years since the cultivators of fruit have been in the habit of pruning peach-trees at the extremities of the branches, instead of cutting off limbs at the trunk. This system of shortening-in, as it is called, is gaining ground, and it is a great improvement. The reasons for this mode of pruning are evident on examination. Most kinds of stone fruit grow rapidly, and bear the greater part of their fruit on new wood, which is, of course, near the ends of the limbs. In this way a tree spreads over much land, and has naked branches near the trunk; and pruning at the trunk causes the gum to ooze out, which sometimes endangers the health or life of the tree.

On the contrary, by pruning at the ends of the branches, the tree is confined to a small space, the wounds have no unfavorable effect, or only affect the twigs, and not the trunk, and much new wood is produced for the production of fruit.

We might say much more in favor of the shortening-in system; but we prefer offering a valuable communication from the "Working Farmer," remarking, in regard to the time of pruning, that it may be done at any time from the fall — nearly the close of vegetation — to the time vegetation commences in the spring.

Shortening-in Peach-Trees, &c. — At a meeting of farmers, which is held weekly at Lyons Farms, the following facts were elicited: —

Several of the persons present gave evidence of the propriety of shortening-in the limbs of the peach, plum, nectarine, and other rapid growing trees. The effect of this practice has been to render them

not only more durable, but to increase the quantity and quality of the fruit.

The peach-tree, in common with the others named above, is short-lived in our climate; and in addition to the ravages of *the peach worm*, and the disease called the *yellows*, the following may be given as the cause:—

The tree grows more prolifically here than in Europe, and in each year's growth extends its branches many feet; the new wood always growing on the ends of the previous year's growth, and the fruit in all cases occurring on the new wood. The weight of the crop, in consequence, is so far removed from the body of the tree, as to render each limb a *lever;* and the result is either to split off the branch, or, from its extreme pressure at the point of its insertion at the tree, to compress the capillary tubes of the main trunk, and thus destroy its organism.

The fruit, by this means, is robbed of its necessary pabulum, and prematurely ripens or falls off. The number of fruit-bearing shoots at the same time increase to so, fearful an extent, that the roots are unable to supply the whole number with sufficient nutriment, and our markets are flooded with half-grown and prematurely ripened peaches.

If, however, when the tree is young, the shoots are shortened in one half their length each year, the new shoots will occur nearer the parent stock, and with less leverage for its destruction; the crop of fruit may safely be greater in weight, although less numerous, as the fruit will be larger, and both the health and beauty of the tree will be preserved.

A dispute arose as to the proper time and manner of performing this shortening-in or trimming process, and the result was as follows:—

Time.—During winter, the farmer has most leisure, and the branches cut are of so small a size, that no harm will ensue from the effect of frost, nor will the trimming cause any premature swelling of buds, to be injured by spring frosts.

Manner.—With a very sharp knife, first head down the tree to the required height, so as to be convenient for the gathering of the fruit; then trim all protruding branches, to improve the symmetrical appearance of the head; cut out all centre-inclining shoots, which crowd the tree and cannot get the sun; these should be cut close to the trunk; then shorten-in all other new growth one half, and if excessive, two thirds, cutting next beyond a wood bud, avoiding the fruit buds; and by this means the new shoot, starting from that bud, will cover and heal the wound perfectly; cover the trunk of the tree with a mixture of soft or whale oil soap and potass water or wood ashes; pour a gallon of boiling water on the trunk near the ground, to kill the peach worm, if any exist in the bark at the surface of the ground; manure the tree with cold manure, muck, or pond mud; and you may have fine fruit and long-lived trees so long as this treatment be continued.

Similar treatment was recommended for the other kinds of trees named above, and numerous instances quoted of the advantages which has arisen from the proposed plan.

This farmers' club, as I suppose it may be called, forms a useful adjunct to the ordinary means of information to be obtained by farmers. A question is chosen, and each person present states what he may know on the subject; and when the conversation flags, some member asks a question, which is sure to elicit an answer from another member; and thus the experience of all present is collated by each member.

HOW TO MAKE A HOTBED.

Every man who has a garden and some knowledge of gardening, and desires a supply of early vegetables, should make a hotbed, in February or March: April will do in the northern part of the state, and where it is only desired for starting early plants, like tomatoes, peppers, celery, &c.

An old window sash will answer for covering the bed; but sash made on purpose, without cross-bars, and the glass lapped, is the best. Make a frame of boards or plank, the size of the sash; or, if sash is made on purpose, let the frame be about four feet wide, and say twelve feet long, with cross-bars where the ashes meet—the front board about twelve inches wide and the back twenty, to give sufficient slope.

Select a place for the bed, where it will be fully exposed to the sun, and sheltered from the north and west winds. Mark out the size of the bed, allowing six or eight inches on all sides larger than the frame. Then drive a stake at each corner, as high as you intend to build the bed. Then take fresh stable manure, in a good state of fermentation, and commence building the bed by mixing the manure thoroughly, and putting on successive layers, beating it down with the fork.

The height of manure requisite will depend on the time at which the bed is formed and the purpose for which it is intended. If made in February or March, and intended for cucumbers, &c., a good deal of heat will be required for two or three months, and about three feet high of manure will be necessary. But a bed made in April, for the purpose of forwarding early plants, to be transplanted into the garden, will not require more than half that quantity.

When the bed is made, put on the frame, and put in about six inches of good fine earth; put on the sash, and let it remain two or three days for the heat to rise, when it will be ready for sowing.

The articles usually sown in hotbeds are cucumber, radish, lettuce, and cress, for early use; and cauliflower, broccoli, cabbage, egg-plant, tomato, pepper, celery, &c.

It often happens that the heat in the bed will be too strong at first; in that case the sash must be raised at the back, so as to let the heat and steam escape. A mat or old cloth should be placed over the opening to keep out the cold wind. In sunny weather, the sashes must be raised considerably, and, if very warm, the plants should be shaded during the middle of the day. An hour of sunshine will often destroy a whole bed of plants, if the sashes are closed tight.

In severe weather, mats or straw should be laid over the bed for protection, especially during nights. Keep the bed moist by gentle waterings. The water should stand several hours in one corner of the bed, so as to become a little warm, before being used. As the weather becomes warmer, and the plants increase in size, plenty of air must be admitted.—*O. C. Almanac.*

METHOD OF PASTURAGE IN HOLLAND.

The following economical method of pasturage has long been observed by the Hollanders: When eight cows have been in a pasture so long as completely to eat all the grass they can graze, and of course can no longer obtain their necessary food, thereupon two horses are turned in, and find sufficient food for some days. After these begin to fail of procuring as much as their nature requires, four sheep are introduced, and find enough for their necessities, and even abundant supply, for weeks.—*Pennsylvania Cultivator.*

WIRE WORMS.

The Albany Cultivator states that a farmer near Albany has preserved his corn from wire-worms the present season by rolling the seed in sulphur.

Domestic Department.

Care of Preserves, &c. — As the weather becomes warm in spring, preserves, sauces, jellies, &c., are liable to become sour, if not attended to, unless they are composed of a large amount of sugar or other preservative. By scalding preserves, &c., occasionally, after the weather becomes warm, and setting them in a cool place, much may be done to continue them in a good condition. In some cases, it may be necessary to add more sugar in order to keep conserved preparations into summer.

In scalding them, great care should be taken to cover them closely before they cool, and in all cases expose them as little as possible to the air. Mould is considered a vegetable substance, of a low or imperfect order, which is propagated by fine seeds floating in the atmosphere, that readily vegetate in numerous substances that have a strong tendency to decay, as in various preparations of fruit, bread, cheese, pumpkin, &c., &c. Heating substances that are liable to mould, destroys the seeds of mould, and close covering of vessels prevents their admission.

Education of the Young for Agricultural Pursuits. — Where an ardent thirst is begotten, in the minds of youth, to become thoroughly prepared for an honorable and useful discharge of the active duties which make up the sum of a happy life, the first great step is taken towards the accomplishment of so glorious an end. We turn our attention to parents, the natural guardians of the young, possessing power to mould and fashion the tender mind, and lead and direct aright the early inclinations as they are first developed. To parents we appeal, assured their influence will be exerted to lead the children under their care to contract an attachment to the employment in which they are engaged. Let the son be thoroughly instructed in every branch of labor to be performed upon a farm, and its management in general, and no doubt, with proper opportunities for instruction from suitable books and well-regulated schools, he will fall in love with the science, and delight in the practice of agriculture. In the successful prosecution of this highly-honored and peaceful pursuit, female efforts and influence are indispensable to lead to auspicious results. I am aware that some persons, of nearsighted and contracted views, have expressed the opinion that the female mind ought to be occupied altogether in the contemplation of unreal things, of ideas that float in a feverish or excited imagination, and of outward accomplishments, and be content to dwell upon the surface of the subjects, without an attempt to dig in the mine of knowledge. No one honored with the title of mother can for a moment listen to any such suggestion, but will, I am sure, put forth their utmost exertion for the fullest expansion and enlargement of the intellectual and moral capabilities of their daughters, as their sons. — *Mr. Ives's Address before the Jefferson County (N. Y.) Agricultural Society.*

Egg Cream. — Take the yolk of an egg, with a dessert-spoonful of cream or new milk, and, if convenient, add two drops of oil of cinnamon: this will form a mixture sufficient to serve three people to mix with their tea; for cream being chiefly the oil of the milk, and the yolk the most nutritive part of the egg, they are both lubricating and nourishing. The oil of cinnamon is cordial and tonic.

Boys' Department.

Is the Bee the Pioneer of Civilization? — The author of *A Tour on the Prairies*, says, the Indians regard the bee as the harbinger of the white man, as the buffalo is of the red, and say, that in proportion as the bee advances, the Indian and buffalo retire. The wild bee is said to be seldom met with at any great distance from the frontier. When the honey-bee first crossed the Mississippi, the Indians, with surprise, found the hollow trees of their forests suddenly teeming with honey; and nothing can exceed the greedy relish with which they banqueted for the first time upon this unbought luxury of the wilderness. At present, the honey-bee swarms in myriads in the noble groves and forests that skirt and intersect the prairies, and extend along the alluvial bottoms of the rivers.

The Way Domestic Animals collect their Food. — The horse, when feeding on natural herbage, grasps the blade with his lips, by which it is conducted between the incisors, or front teeth. These he employs for the double purpose of holding and detaching the grass, the latter action being assisted by a twitch of the head. The ox uses the tongue to collect his food. That organ being so directed as to encircle a small bundle of grass, which is placed by it between the incisor teeth, and an elastic pad opposite to them in the upper jaw, — between these the herbage is pressed and partly cut, its complete severance being effected by tearing. The sheep gathers his food in a similar manner as the horse, but is enabled to bring his cutting teeth much nearer to the roots of the plants, in consequence of the upper lip being partially cleft. For his upper lip is thin, and is susceptible of considerable mobility; while that of the ox is thick, hairless, with a very limited action. — *American Agriculturist.*

Health.

Wet Feet. — In endeavoring to preserve health, there is no subject of more importance than that of keeping the feet dry. Wet feet affect the whole system, even the head. The feet may be cold, almost to freezing, without injury; but damp, and more especially wet feet, for one who is not in constant exercise, have a most destructive effect on health; and as a person values this inestimable blessing, he should cautiously guard against any thing that is liable to destroy it.

Those who are exposed to water and mud, so common at this season, should be provided with stout and tight boots or shoes, and they should be frequently stuffed with some water-proof composition. Some persons use neat's foot oil, others castor oil. Tar mixed with oil or tallow is good, but it has an unpleasant smell. Linseed oil is also used. A simple and convenient preparation, which we generally use, with excellent success, is one part of beeswax and two parts of beef's tallow.

The leather should be made quite warm, and the composition applied in a warm state, and the leather again exposed to as much heat as it will bear, without injury. Apply it to upper and sole leather, till it is fully saturated, even so full that it begins to come through the upper leather. Repeat the application occasionally during the wet season, and very often when constantly exposed. A little extra expense and pains, to preserve health at this season, is economy.

Balm-of-Gilead buds, bottled up in New England rum, make the best cure in the world for fresh cuts or wounds. Every family should have a bottle of it. The buds should be gathered in a peculiar state; just when they are well swelled, ready to burst into leaves, and well covered with gum. They last but two or three days in this state.

If not convenient to add rum to the buds at the time of picking, put them into a bottle, and cork the bottle tightly, and the buds will keep in good condition for a long time.

Mechanics' Department, Arts, &c.

New Application of India Rubber. — The Liverpool Albion describes an ingenious application of caoutchouc, or prepared India rubber, and which shows the expanding power of the preparation. It has been made and patented by Mr. Sangster, of Regent Street, to a very useful purpose. It is to supersede springs of metal for the expansion of parasols, and for compressing the ribs of them, and of similar articles. The India rubber is prepared by a chemical process, or by some process of science made into the shape of a small pipe or hose; it is also vulcanized. By these means the elastic power and the tenacity of the gum are increased to a perfectly marvellous degree. A small ring of the material so prepared, less in width than the eighth of an inch, is cut from the pipe, and placed around the top of the ribs. When the ribs are expanded, the elastic power of the ring enables it to be stretched so as to suit the exigency, while its leverage and power of contraction are so great, that directly the power is removed by which the expansion is secured, it forces the ribs together, and keeps them firmly compressed. As an application of science to a practical advantage, it is very curious and convenient. — *Farmer and Mechanic.*

A New Thing in Mechanics. — Mr. Joseph Harris, Jr., of this city, has invented and patented a box and axle, which requires no oil, and yet almost completely escapes that destroying angel of all machinery — friction. At least so we cannot but hope, from seeing a working model, which, we understand from Mr. Harris, has been put in a lathe and turned one thousand revolutions in a minute, — a motion which, with a common-sized railroad truck wheel, would carry it about two miles in a minute, or one hundred and twenty miles in an hour, without producing any perceptible heat, and without the use of a particle of oil. The mechanism by which a result so desirable and astonishing is effected, is somewhat after the manner of that discovered by the prophet Ezekiel in his vision, "a wheel in the middle of a wheel," or rather six wheels in the middle of one. The box is about five inches in diameter, and the axle three inches; and in the space between them are disposed, at equal distances, six anti-friction rollers, which are kept in their places by teeth at both ends, playing into corresponding circles of teeth in both the box and axle. There is no bearing upon these teeth, which are cut to the anti-friction curve. The bearing is entirely upon the smooth portion of the rollers between the teeth. The only service of the teeth is to prevent the possibility of the rollers getting out of place.

That this invention will work admirably in the first place we have very little doubt. How it will wear, is a question which must be tested by experience. At all events, it is a thing which railroad directors and engineers will find it for their interest to look at carefully. — *Chronotype.*

COMPOSTS.

Eds. Cultivator. — You ask about my compost heap. I live in a large manufacturing town, with a population of twelve thousand or more. I have a cart with a tight box, holding thirty-six square feet. I send this cart out with my oxen, and give the parties driving and filling it seventy-five cents for a full load of night soil; having first made a basin of dry marsh mud, of which I have abundance, into which this night soil is emptied. We have several large founderies, that use much charcoal; the dust they cannot burn. This dust they give to me; and it only costs me cartage to bring it to my night soil. Again, we have several large factories, that use anthracite coal. I take from them their sifted ashes; this costs me nothing but carting.

Again, we have other factories that use half coal, half wood. For these ashes I give one cent per bushel. Now, I mix all these ingredients into a home-manufactured poudrette. I ought to have said, that to each load of night soil I add one bushel of Plaster of Paris, which, with the charcoal dust and plaster, will render it inodorous.

Next, I buy oyster-shells at three and a half cents per bushel; burn them with cedar bush, from a mountain lot I own. One bushel of shells makes two of lime; but I cover the heap with an equal quantity of marsh mud, which, in fact, is a species of turf. And here I have a large source of cheap manure, at one cent per bushel. As for anthracite coal ashes, I am satisfied that on all my lands they are useful, particularly for a top-dressing for fruit trees; and on clay lands, they act mechanically in opening the soil, so that air can get down to the roots of plants.

Our soil is a red, decomposed sandstone; and lime acts most beneficially on it. I prefer small doses, say forty bushels of slaked lime per acre, repeated every two or three years, with a bushel of Plaster of Paris per acre each year. I have found the waste of a flaxmill, after twelve months' decomposition, very valuable manure. — *Cultivator.*

ROLLING WHEAT.

On the advantages, if any, of rolling wheat, I am sorry to say I can furnish nothing from personal experience; but they are so manifest to the observing farmer, that it is a matter of surprise that any one should neglect the trial of the experiment. Although I do not know, yet I should think that we of this latitude — thirty-nine degrees — were more exposed to loss from our winter grain *freezing out*, than in colder climates; for it is not the degree of cold that causes the injury, nor its long continuance, but the indecisive way our Spring has of coming in, which is to advance two steps during the day, and fall back one at night, and then, as though unequal to the task, the gentle goddess shrinks back to her winter retreat, — the fountains and flowing streams, — and the grim

tyrant again locks up his prisoners, almost escaped. By this alternate freezing and thawing, the roots of the grain are broken and raised above the surface of the ground; much of it, held by only one fibre, is blown about by the cold winds; and the shade of that which is thrifty, or a short spell of dry weather, soon destroys every prospect of its heading.

Now, suppose a roller to be passed over the field; it will press all this standing-out wheat close to the ground, so that its roots can branch and take a fresh hold; and as every clod will be crushed, many a fibre will be covered by the crumbled earth, and thus take a fair start with the rest. But the roller has another use — to cover grass seed. Here we sow clover seed the last of February, or first of March, in order that it may have time to form a good root before hot weather, which often destroys it. If the ground is in proper order, the roller will press the seed slightly into the earth, which will cause it to germinate immediately; and should this be frozen out, there is another portion, which, being slightly covered, will be a little later, and, by its *being* covered, will be better able to stand either frost or heat.

I am here reminded of an incident which goes to prove the advantage of *pressure* upon wheat in the spring. A neighbor hauled out his clover seed chaff to sow, using a cart for the purpose. From the time the wheat covered the ground, you could see two parallel lines of verdure traversing the fields, just the distance that the wheels were apart; and this was distinguishable in some places, after the wheat was cut, by the superiority of the stubble.

Now, is it not strange that with these things so plain to every one, the roller is so little used? Well, the secret is just this: We believe in it, *but we ain't got any roller*. We don't think of it, or, if we do, we put it off until reminded by the condition of the ground, that it would be a fine time to use it. We then *vow* that we'll have one by next spring; but alas! you know what resolutions of *future* amendment are worth. Well, now, I *am* going to have one. It costs me too much *to do without it*. What do you say, reader? All those in favor will say, "Where's my axe?"

W. H. G.

Frederick County, *Va.*, 1849.

Remarks by the Editor of the New England Farmer.

Much has been said by intelligent cultivators of the advantages of rolling winter wheat, in order to reset the plants that have been thrown out of the ground by frequent freezing and thawing, and all opinions are in favor of this operation. In this section but little winter wheat is raised, but in sowing summer grain, there is great advantage to both grain and grass in rolling the land, besides leaving the land smooth for the scythe and rake.

MILLET.

This plant is cultivated both for seed and for fodder; and although it is a long time since it has been tried in different parts of the country, yet it is but very little cultivated. For fodder, corn is usually preferred, as it yields a far larger crop. The following remarks are from Professor Emmons, in an article in the American Journal of Agriculture and Science: —

He states that he has subjected this grain to an analysis, in order to determine the proportion of nutritive matter it contains. He finds that, compared with wheat or Indian corn, except in oil, it exceeds both in its power of sustaining life. The grain is "rich in the elements that produce bone and muscle, and its straw is not deficient in the elements common to the cultivated grasses." He thinks it might be cultivated in this country with profit, as food for animals, as it yields from sixty-five to seventy bushels to the acre.

Millet is much used in some parts of Europe — England, Germany, and Poland — where it is used as a substitute for rice, sago, or hominy, and also as food for poultry. It requires a warm, sandy, rich soil, which should be well pulverized to a good depth. It is planted in drills, and should be sown the latter part of April, or early in May. Millet was formerly raised to some extent in Pennsylvania, but was soon abandoned, not being considered so profitable as some other crops.

ANIMAL ENJOYMENT.

Many persons have been puzzled in regard to the cause of some animals being made to subsist on others, as it seems to be a barbarous mode of obtaining their sustenance. Those who cannot see why the great fish should eat the little ones, may read with interest the following article from Buckland's Geology: —

Aggregate of Animal Enjoyment increased, and that of Pain diminished, by the Existence of Carnivorous Races.

The inhabitants of the earth have been divided into two great classes, the one herbivorous, the other carnivorous; and though the existence of the latter may, at first sight, seem calculated to increase the amount of animal pain, yet, when considered in its full extent, it will be found materially to diminish it.

To the mind which looks not to general results in the economy of nature, the earth may seem to present a scene of perpetual warfare and incessant carnage; but the more enlarged view, while it regards individuals in their conjoint relations to the general benefit of their own species, and that of other species with which they are associated in the great family of nature, resolves each apparent case of individual evil into an example of subserviency to universal good.

Under the existing system, not only is the aggregate amount of animal enjoyment much increased, by adding to the stock of life all the races which are carnivorous, but these are also highly beneficial even to the herbivorous races, that are subject to their dominion.

Besides the desirable relief of speedy death on the approach of debility or age, the *carnivora* confer a further benefit on the species which form their prey, as they control their excessive increase by the destruction of many individuals in youth and health. Without this salutary check, each species would soon multiply to an extent exceeding, in a fatal degree, their supply of food, and the whole class of *herbivora* would ever be so nearly on the verge of starvation, that multitudes would daily be consigned to lingering and painful death by famine. All these evils are superseded by the establishment of a controlling power in the *carnivora;* by their agency, the numbers of each species are maintained in due proportion to one another — the sick, the lame, the aged, and the supernumeraries, are consigned to speedy death; and while each suffering individual is soon relieved from pain, it contributes its enfeebled carcass to the support of its carnivorous benefactor, and leaves more room for the comfortable existence of the healthy survivors of its own species.

The same "policy of nature," which is thus beneficial to the great family of the inhabitants of the land, is established with equal advantage among the

tenants of the sea. Of these, also, there is one large division, that lives on vegetables, and supplies the basis of food to the other division, that is carnivorous. Here, again, we see that, in the absence of *carnivora*, the uncontrolled *herbivora* would multiply indefinitely, until the lack of food brought them also to the verge of starvation; and the sea would be crowded with creatures under the endurance of universal pain from hunger, while death by famine would be the termination of their ill-fed and miserable lives.

The appointment of death by the agency of *carnivora*, as the ordinary termination of animal existence, appears therefore, in its main results, to be a dispensation of benevolence: it deducts much from the aggregate amount of the pain of universal death; it abridges, and almost annihilates, throughout the brute creation, the misery of disease, and accidental injuries, and lingering decay; and imposes such salutary restraint upon excessive increase of numbers, that the supply of food maintains perpetually a due ratio to the demand. The result is, that the surface of the land, and depths of the waters, are ever crowded with myriads of animated beings, the pleasures of whose life are coëxtensive with its duration, and which, throughout the little day of existence that is allowed to them, fulfil with joy the functions for which they are created. Life to each individual is a scene of continued feasting, in a region of plenty; and when unexpected death arrests its course, it repays with small interest, the large debt which it has contracted to the common fund of animal nutrition, from whence the materials of its body have been derived. Thus the great drama of universal life is perpetually sustained; and though the individual actors undergo continual change, the same parts are filled by another and another generation; renewing the face of the earth, and the bosom of the deep, with endless succession of life and happiness.

HOW TO RAISE GOOD POTATOES.

My object in writing, at this time, is to give to you my method of growing potatoes free from the rot. I have practised it two seasons with entire success, and have now six hundred bushels of fine Mercer potatoes in my cellar, and all free from the disease.

My method is, to plough the ground late in the fall or early in the spring, harrow it smoothly before planting time, then haul out say fifteen tons rotted manure, spread it broadcast, then take two horses and a plough, and back up two full furrows, the furrows just meeting in the backing; leave a strip one foot wide, and back up two more; and so continue till you have completed the lot. Then turn about and split these double furrows open with a single furrow, then commence dropping your potatoes (pieces of cut potatoes, containing at least four eyes) in the furrow, six inches apart. After the lot is dropped, take your horses and plough, and throw two good furrows, (one round of the team to a row,) just meeting on the top; dress off the top, clearing the row of stones, clods, &c.; then sow broadcast five bushels common salt over the ground immediately after planting; cultivate well till the plants are in blossom, and you will have a good crop; never cultivate potatoes when in blossom.

When the crop is ready to gather, clear the ground, take your two horses and plough, turn a furrow from each side of the row: let a boy pick up the scattering potatoes; then turn out the row, pick up the potatoes; then hoe down the ridge; lastly, harrow over the ground, pick up the remaining potatoes, and the work is finished. The agriculturist must at once observe that, by this process, he gets a broad, loose bed for the potatoes to grow in, also double depth of soil; then you are certain of good dry potatoes. I would here observe that potato ground is the very best for producing a good crop of wheat; and I would advise farmers to grow a greater surplus of this most valuable root. If there is no market, store them, and feed them to your horses, cattle, and hogs; feed them in your stable through the winter; give your stock good bedding; clean out your stables once a week; make as large a manure heap as possible; and you will not be troubled with the potato disease, nor that worse malady arising from always taking out of the meal tub and never returning any; you will thus come to the bottom. — *Ohio Cultivator.*

THE EDUCATION OF OXEN.

A "Glenburn Farmer," in the Bangor Whig, contends that the practice of testing the merits of working oxen, at cattle shows, by the mere ability to drag the heavest possible burden, is unsatisfactory and unsafe, as not exhibiting the most valuable qualities of the animals, nor showing their most useful capacities in the performance of their ordinary work. We annex a part of his sensible remarks: —

"I would suggest that at the next trial of oxen at the Society's Show, it should be upon a judiciously loaded cart, and that the exercise should consist of drawing, turning, and backing. What the public want in regard to working oxen is, an exhibition of the best trained cattle for farm purposes. Nor is this all. We want to see the *man* who trained them, and his manner of doing it. We want an exhibition of good teamsters as well as good teams; for very much of the merit of a yoke or team of cattle belongs to the teamster. And instead of giving all the premiums to good oxen, one half, at least, should go to good drivers. No driver, however, should receive a premium for himself or oxen, however good they might be, who used profane language during the exhibition. A rule of this kind would have changed the direction of more than one premium at the late trial.

"Good teamsters are worth from five to ten dollars a month more than poor ones; and yet, with this difference in price, it is very easy to find a hundred, and I believe I might say a thousand, poor ones for one good one. No man can be a good teamster who is not a gentleman. He must be gentle, kind, and careful. No good teamster will put his oxen to an *unnecessary* waste of strength, or to *unnecessary pain* by the use of the goad stick, or brad."

WET LANDS.

Farmers, as a general thing, are too remiss, says a correspondent of the Germantown Telegraph, in the business of improving their wet lands. In some sections, where the rapid increase of population has greatly increased the price of arable soils, and their products, we find something like a regular system of drainage adopted, and a very decided and marked improvement in the management of most of the details of the farm, as the inevitable result. There can be no question, that most of our low bog lands possess high value, and are calculated to become extremely valuable for most agricultural uses, when properly managed and freed from the deteriorating effects of the supernatural waters by which they have been so long submerged. We find that all low lands, which are continually or periodically submerged, produce some aquatic plants, all of which are permitted to grow and decay without being removed. The *humus* thus produced is consequently allowed to accumulate, and when the water is drawn off, we find a deep, rich bed of muck, which is replete with the most energetic vegetative principles,

and capable of sustaining exhausting and different crops of grain and grass, for a series of many years, without the assistance of any manure, or of any ameliorating agent, except the plough or spade. If farmers would only study their own interest in this matter, we should see few bogs and more fields; there would be less complaints as to the scarcity and high price of land, and the general appearance and condition of many rural districts would be immensely improved. Drainage, when systematically conducted, is by no means a costly undertaking; and when one has a family of boys, and can avail himself of leisure seasons, it will be found to involve but small expense, even under the most inauspicious circumstances. Lands thus reclaimed possess high value for mowing and grazing purposes, and, when once well stocked with grasses, require to be ploughed but seldom. An occasional top dressing of compost, with a liberal annual application of gypsum, house ashes or lime, is all that is requisite to sustain a high vegetative activity, and maintain them in a condition of the most perfect health and heart. — *Lancaster Farmer.*

FACTS IN PRUNING.

The action of roots and that of leaves are reciprocal. If you diminish the quantity of foliage, you will proportionably lessen the increase of roots. If 100 represents the quantity of roots made by a tree with all its foliage, then 50 will represent the quantity of roots formed by a tree similar to the other in every respect, except in having the production of foliage repressed, by whatever means, to the extent one half. You will, therefore, perceive that by summer pruning, both roots and tops are equally reduced, and that what may be termed the balance of power between these is still maintained. On the contrary, if you prune only in winter, the roots are, in consequence, but little affected, their increase for the season having been completed in the previous summer; and in the following season, the whole amount of force exerted by the full complement of roots is brought to bear on a top limited by winter pruning, and this force is evinced by over-luxuriance, which some remedy by root pruning.

With regard to young spray springing from the ends of previously shortened shoots, it may be cut back to two eyes, in all cases. — *Lindley.*

HOG MANURE.

Well knowing the excellence of hog manure, I tested it against guano and bone manure in the cultivation of turnips; the result was quite equal to guano, and beat the bone dust hollow; and I found the same result on light as on heavy land. I prepare my manure under cover, having a large dry shed, in which I put a layer of dry coal ashes about a foot thick, to which the deposits of the hogs are taken, both liquid and solid; and as soon as it begins to ooze out, I put on more ashes; and so on, until it gets about four feet in thickness. I then commence a fresh layer, and treat it in the same manner. After lying some time, it is turned over two or three times, when it is fit for drilling. In this way, I have put in forty-five acres of turnips the present year, and no other manure; the result being open for the inspection of every one.

I find the droppings of three hogs, carefully preserved, to be an ample dressing for two acres, and quite equal to three sacks of bone dust per acre. And I consider, if we can obtain such valuable manure for nothing but the labor, it is better than putting our hands into our pockets, and paying six or eight dollars an acre for artificial manures. — *Agric. Journal.*

BE KIND.

Be kind to thy father — for when thou wert young,
Who loved thee so fondly as he?
He caught the first accents that fell from thy tongue,
And joined in thy innocent glee.
Be kind to thy father — for now he is old,
His locks intermingled with gray:
His footsteps are feeble, once fearless and bold:
Thy father is passing away.

Be kind to thy mother — for lo! on her brow
May traces of sorrow be seen;
O, well mayst thou cherish and comfort her now,
For loving and kind hath she been.
Remember thy mother — for thee will she pray,
As long as God giveth her breath;
With accents of kindness then cheer her lone way
E'en to the dark valley of death.

Be kind to thy brother — his heart will have dearth
If the smile of thy joy be withdrawn;
The flowers of feeling will fade at the birth,
If the dew of affection be gone.
Be kind to thy brother — wherever you are,
The love of a brother shall be
An ornament purer and richer by far
Than pearls from the depth of the sea.

Be kind to thy sister — not many may know
The depth of true sisterly love;
The wealth of the ocean lies fathoms below
The surface that sparkles above.
Thy kindness shall bring thee many sweet hours,
And blessings thy pathway to crown;
Affection shall weave thee a garland of flowers
More precious than wealth or renown.

THE OLIO.

A Sad Condition. — Miravaux was accosted by a sturdy beggar, asking alms. "How is this," inquired Miravaux, "that a lusty fellow like you, is thus employed?" "Ah," replied the beggar, looking very piteously, "if you did but know how lazy I am!" Miravaux gave him a piece of silver.

Irish Wit and Gallantry. — One day, when our streets were a perfect glare of ice, a lady pedestrian lost her balance and fell. As we aimed to assist her, we encountered a genuine son of the Green Isle, who, on assisting the lady to rise, exclaimed, "Faith, ye must be a lovely *good* lady; for don't the blessed Book tache us that it is the *wicked* that *stand* on slippery places?" — *Ind. State Sentinel.*

Never go back. — Never go back — never. What you attempt, do with all your strength. Determination is omnipotent. If the prospect is somewhat darkened, put the fire of resolution to your soul, and kindle a flame that nothing but the strong arm of death can extinguish.

TERMS. — The New England Farmer is published every other Saturday, making a neat and handsome volume, at the close of the year, of 416 pages, at $1 a year, or five copies for $4, payable in advance. It may be neatly bound at 18¾ cents, or elegantly bound in muslin, embossed and gilt, at 25 cents a volume.

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